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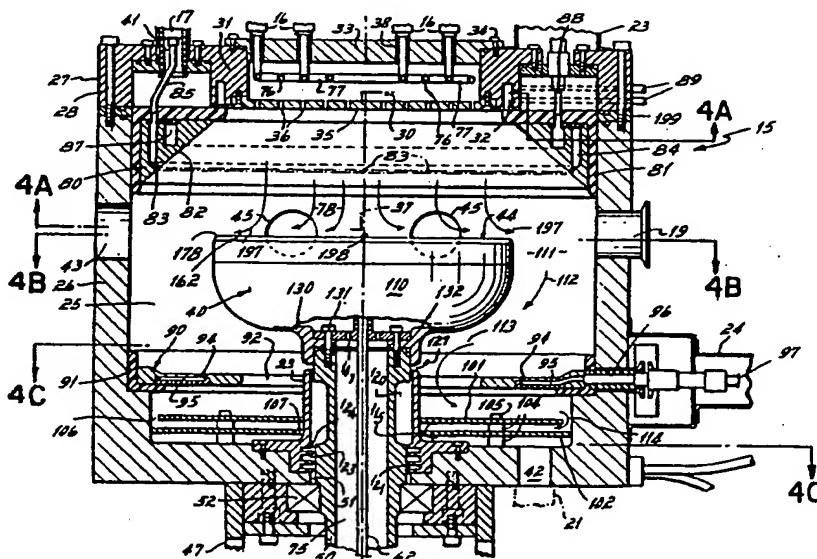
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(54) Title: SEMICONDUCTOR WAFER PROCESSING CVD REACTOR CLEANING METHOD AND APPARATUS



## (57) Abstract

A semiconductor wafer processing apparatus, particularly a CVD reactor (10), is provided with plasma cleaning electrodes (80, 90) integrated into process gas flow shaping structure that smoothly directs the gas past the wafer (44) on a susceptor (40). The processing apparatus preferably has a showerhead (35) or other inlet to direct a gas mixture onto a wafer (44) and a plurality of baffles (90, 101, 102) to reduce turbulence. Plasma cleaning electrodes (89, 90) are included in the baffles or the showerhead or both, one or more of which preferably have cleaning gas outlet orifices (83, 94) therein, preferably evenly distributed around the axis of the susceptor to provide uniform cleaning gas flow.